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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 10/016,301 | 10/30/2001 | Jeffrey T. Kohli | SP01-284 | 7281 |

22928 7590 03/19/2003

CORNING INCORPORATED
SP-TI-3-1
CORNING, NY 14831

EXAMINER

SAMPLE, DAVID R

| | |
|----------|--------------|
| ART UNIT | PAPER NUMBER |
|----------|--------------|

1755

DATE MAILED: 03/19/2003

3

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application N .

10/016,301

Applicant(s)

KOHLI, JEFFREY T.

Examin r

David Sample

Art Unit

1755

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 October 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-26 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-26 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2. 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-26 are rejected under 35 U.S.C. 102(e) as being anticipated by Maeda et al. (US Patent No. 6,268,304 B).

Maeda '304 discloses a glass composition having ranges of components that are sufficiently specific to anticipate the glass composition recited in instant claims 1, 9-18, and 22-25. See col. 6, line 60 to col. 7, line 7 and MPEP 2131.03.

Moreover, the reference discloses ranges for strain temperature and thermal expansion coefficient that are sufficiently specific to anticipate the ranges for these properties in instant claims 5-8, 18, and 24. See col. 3, lines 32-35.

The reference fails to disclose the liquidus temperature or the viscosity at the liquidus temperature described by instant claims 2-4, and 19-21. However, a glass's properties are determined by its composition, and the composition of the reference is identical to the presently claimed composition. Therefore, the liquidus temperature and the viscosity at the liquidus temperature properties recited in the claims are assumed to be inherent to the composition of Maeda '304. See MPEP 2112.

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The "substrate" recitations of instant claims 23 and 24 can be found in the reference at column 3, lines 46-53.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-4, 7-17, 23, 25 and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Maeda et al. (JP 09249430).

Maeda '430 discloses a glass composition, which is believed to have overlapping ranges of components with the glass of instant claims 1, 9-17, 23 and 25. See the translated abstracts, and paragraph [0007]. It is noted that the reference discloses a glass composition in weight percent whereas the instant claims describe the glass in mole percent. This discrepancy makes it difficult to compare the reference and the claims. However, the examiner has formulated a theoretical composition which has amounts of components in weight percent and mole percent that fall within the ranges of the claims and the ranges disclosed by the reference:

| | Wt% | Mol% |
|--------------------------------|------|-------|
| SiO ₂ | 56.0 | 62.6% |
| Al ₂ O ₃ | 24.2 | 15.9% |
| K ₂ O | 3.5 | 2.5% |
| Na ₂ O | 8.8 | 9.5% |
| MgO | 1.0 | 1.7% |
| CaO | 6.5 | 7.8% |

| | | |
|-----|-----|------|
| SrO | 0.0 | 0.0% |
| BaO | 0.0 | 0.0% |

This theoretical composition is evidence that the glass of the reference has overlapping ranges of components with the glass of the present invention. Overlapping ranges have been held to establish *prima facie* obviousness. See MPEP 2144.05.

The reference fails to disclose the liquidus temperature, the viscosity at the liquidus temperature or the strain temperature described by instant claims 2-4, 7, 8. However, a glass's properties are determined by its composition, and the composition of the reference has overlapping ranges of components with the composition of the instant claims. Therefore, one of ordinary skill in the art would expect that the glass of the reference would have the claimed properties.

Conclusion

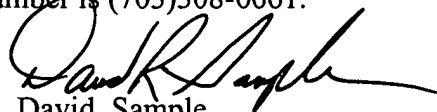
The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to David Sample whose telephone number is (703)308-3825. The examiner can normally be reached on Monday to Thursday and alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark Bell can be reached on (703)308-3823. The fax phone numbers for the organization where this application or proceeding is assigned are (703)872-9310 for regular communications and (703)872-9311 for After Final communications.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)308-0661.

A handwritten signature in black ink, appearing to read "David Sample", written over the printed name.

David Sample
Primary Examiner
Art Unit 1755

DRS
March 13, 2003